

CHAIN OF CUSTODY RECORD

PROJ. NO. 02AH66		PROJECT NAME Cheshire Monitoring studt			NO. OF CON- TAINERS	Analyte	Activity Code: 12345 AIR 0209016				
SAMPLERS: (Print Name and Sign) Mike Murphy <i>Mike Murphy</i>											
STA. NO.	DATE	TIME	MO P	OC A	B	STATION LOCATION	TAG NUMBERS				
DO1	8/30	00:00	X			GHS	1	5-340290 1 to 1			
SO1	8/30	00:00	X			GHS	1	5-340289 1 to 1			
								GHS # 3012, Pstg Avg = 20.3			
								GHS # 3013, Pstg Avg = 20.9			
								No Filters for River Valley or Aledo, IL			
Relinquished by: (Signature) <i>M.J. Murphy</i>			Date / Time 8-30-02 0936		Received by: (Signature) <i>William Aug 5</i>			Ship To:			
Relinquished by: (Signature)			Date / Time		Received by: (Signature)			ATTN:			
Relinquished by: (Signature)			Date / Time		Received for Laboratory by: (Signature) <i>William Aug 5</i>		Date / Time 9/30/02 11:52am		Airbill Number LIPS # 12 401194 01 4087 8706		
Chain of Custody Seal Numbers											

Project No. 02AH66 Project Name AIR 0209 076 CHEESHIRE MONITORING STUDY 90102A
 ARRIVAL DATE: 9/30/2002 DEPART DATE: 10/22/2002

Sampler Mike Murphy

Cooler ID 1 Page 5-140072

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH66DO1	DO1	30/08/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340290 1 to 1

Bottle No. 1

Parameter PM10

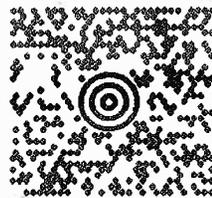
Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH66SO1	SO1	30/08/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340289 1 to 1

Bottle No. 1

Parameter PM10

FROM:
SOUTHEAST DISTRICT OFFICE
(740) 385-8501
OHIO EPA
2195 E. FRONT STREET
LOGAN OH 43138-8637

2 LBS 1 OF 1



IL 606 9-08



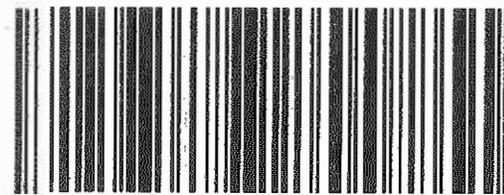
SHIP TO:

WILLIAM SARGENT, JR.
USEPA CENTRAL REGIONAL LABORATORY
10 FLOOR
536 SOUTH CLARK STREET
CHICAGO IL 60605

UPS NEXT DAY AIR

TRACKING #: 1Z 401 199 01 4087 8706

1



U.S. FEDERAL PROTECTION SERVICE

SEP 27 2002

Officer's Initials
536 S. Clark St.

BILLING: P/P

CENTRAL REGIONAL LABORATORY
Data Checklist

Data Set AIR 0209016 Cheshire Monitoring Study
PM10

- Chain of Custody
- Reported in LIMS
- Transmittal Report w/signatures of the following:
 - Analyst(s)
 - Environmental Data Coordinator

Prepared by: Sylvia Griffin 10-22-02
Environmental Data Coordinator

Revised 11-04-02

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: OCT 22 2002

Subject: Review of Region 5 Data for **CHESHIRE MONITORING STUDY**

From: Francis A. Awanya, Chemist ~~FAA~~
Region 5 Central Regional Laboratory

AIR
0209016

To:

Attached are the results for: **CHESHIRE MONITORING STUDY**

CRL data set number: **0209016**

Samples analyzed for: **Suspended Particles**

Results are reported for sample designations: **2002AH66D01 and 2002AH66S01.**

OCT 27 2002

Data Management Coordinator and Date Received

Date Transmitted: OCT 22 2002
 / /

Please have the U.S. EPA Project Manager/Officer complete the Customer Satisfaction Survey, attached, or call the CRL Sample Coordinator at 3-1226.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML-10C

_____/_____/_____
Received by and Date

Comments:

CRL Data Review Qualification Codes

QUALIFIER	DESCRIPTION
B	This flag is used when the analyte is found in the associated <u>B</u> lank as well as the sample. It indicates possible blank contamination and warns the user to take appropriate action while assessing the data. See the case narrative for a discussion of common lab contaminants and/or the relative concentration of contamination in the samples and blanks for relevance.
J	This flag is used when the analyte is <u>e</u> stimated due to quality control limit(s) being exceeded. This flag accompanies all GC/MS tentatively identified compounds (TICs). This flag also applies to a suspected, unidentified interference. This flag is placed on affected detected results as well as non-detected (i.e., "U" flagged) results. (<u>J</u> is the flag used in the Superfund CLP SOW and Data Review Functional Guidelines and is used by CRL for consistency.)
M	This flag is used when the analyte is confirmed to be qualitatively present in the sample, extract or digestate, with a quantity at or above the CRL <u>M</u> ethod Detection Limit (MDL) but below the lowest concentration of the calibration curve. This flag indicates the quantitated value is <u>e</u> stimated since it falls below the lowest calibration standard in the calibration curve.
N	This flag applies to GC/MS <u>T</u> entatively Identified Compounds (TICs) that have a mass spectral library match.
Q	This flag applies to analyte data that are severely estimated due to quality control and/or <u>Q</u> uantitation problems, but are confirmed to be qualitatively present in the sample. <u>No value is reported with this qualification flag.</u>
R	This flag applies to analyte data that are <u>R</u> ejected and unusable due to severe quality control, quantitation and/or qualitative identification problems. No other qualification flags are reported for this analyte. <u>No value is reported with this qualification flag.</u>
U	This flag is used when the analyte was analyzed for but <u>U</u> ndetected in the sample. The CRL RL for the analyte accompanies this flag. When the customer requests CRL to report below our RL down to our MDL, undetected analytes are reported with a "U" code and the MDL. As with sample results that are positive, the value is corrected for dry weight, dilution and/or sample weight or volume.



**Environmental Protection Agency Region 5
Central Regional Laboratory**

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

WORK ORDER

Printed: 10/17/02 12:08:14PM

0209016

US EPA Region 5 Central Regional Laboratory

Client: Air Division, US EPA Region 5	Project Manager: Marilyn Jupp
Project: Gavin, Cheshire. Ohio	Project Number: [none]

Report To: Kathy Triantafillou Air Division, US EPA Region 5	77 West Jackson Boulevard Chicago, IL 60605	Phone: (312) 353-4775 Fax: (312) 353-2001
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Date Due:	Oct-22-02 15:00 (21 day TAT)	Date Received:	Sep-30-02 11:52
Received By:	William Sargent	Date Logged In:	Sep-30-02 12:08
Logged In By:	William Sargent		

Samples Received at:	°C	Starts 8-3-01
All containers intact:	No	Ends 8-3-02
Sample labels/COC agree:	No	
Samples Preserved Properly:	No	
Custody Seals Present:	No	

Analysis	Due	TAT	Expires	Comments
0209016-01 2002AH66D01-GHS#3012,PSTG AVG=20.3 [Air Filter] Sampled Aug-30-02 00:00 Central				
PM10	Oct-22-02 12:00	21	Aug-30-03 00:00	
0209016-02 2002AH66S01-GHS#3012,PSTG AVG=20.9 [Air Filter] Sampled Aug-30-02 00:00 Central				
PM10	Oct-22-02 12:00	21	Aug-30-03 00:00	

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Data Set Number:	<u>0209016</u>	Parameter:	<u>Suspended Particles</u>
Facility Name:	<u>CHESHIRE MONITORING STUDY</u>		
Study Name:	<u>CHESHIRE MONITORING STUDY</u>		
Date of Narrative:	<u>10/18/2002</u>	Analyst:	<u>FAA</u>
Prepared by:	<u>FAA</u>	Signature:	<u>FAA</u>

ANALYSIS CASE NARRATIVE

Two (2) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on September 30, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

Filters ID	Samples ID	Tag Number
Q6597491	2002AH66D01	5-340290-1
Q6597494	2002AH66S01	5-340289-1

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 10/15/2002 and was completed on 10/17/2002. All exposed filters were in good conditions.

QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

All the sample results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

ENVIRONMENTAL PROTECTION AGENCY
 REGION V
 CENTRAL REGIONAL LABORATORY
 FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION SAMPLING DATE: 08/30/2002 LAB ARRIVAL DATE: 09/30/2002 DUE DATE: 10/22/2002
 DU NUMBER: 90101A WORK ORDER NUMBER: 0209016 STUDY: CHESHIRE MONITORING STUDY PRIORITY: 1 LABORATORY :CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2002AH66D01	GUIDING HANDS SCHOOL	0.0148			
2	2002AH66S01	GUIDING HANDS SCHOOL	0.0377			
DATE OF ANALYSIS			10/15-17/2002			
ANALYST			FAA			

Reviewed by: AA Date: 10/21/2002

ATTACHMENT II

CRL Analytical and Inorganics Data Review Checklist

Batch Number: 0209016 Facility: CHESHIRE MONITORING STUDIES
 Parameter: SUSPENDED PARTICLES CRL.SOP: A1G047

Package Overview:	YES	NO
Raw Data Package Complete?	✓	
Results Reported Correctly?	✓	
Special Requests Done?	N/A	
Calculations Checked?	✓	
Calibration Not Exceeded?	N/A	
Manual Peak Integration performed? Circle one IC or GC and Check	N/A	
Field QC Checked?	N/A	
Quality Control:		
Holding Times Met?	✓	
Preservation Checked?	N/A	
Proper Digestion Verified?	N/A	
Initial Instrument Performance Checks Verified?	✓	
Calibration Verification Checked?	N/A	
Sample-Specific QC (Internal Standards or Analytical Spikes) Okay?	N/A	
Matrix QC Checked?	N/A	
Digestion Blanks Checked?	N/A	
Spiked Blank Checked?	N/A	
LCS (if applicable) Checked?	N/A	
QCS (if applicable) Checked?	N/A	
Final Check		
Technical Review Done?	✓	
Narrative Complete?	✓	

Analyst: FAA Peer Reviewer: AT

Date: 10/18/02 Date: 10/21/2002

Comments Attached? (Y/N) N

Data Set Number:	<u>0209016</u>	Parameter:	<u>Suspended Particles</u>
Facility Name:	<u>CHESHIRE MONITORING STUDY</u>		
Study Name:	<u>CHESHIRE MONITORING STUDY</u>		
Date of Narrative:	<u>10/18/2002</u>	Analyst:	<u>FAA</u>
Prepared by:	<u>FAA</u>	Signature:	<u>FAA</u>

ANALYSIS CASE NARRATIVE

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Q6597494	2002AH66S01	5-340289-1

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 10/15/2002 and was completed on 10/17/2002. All exposed filters were in good conditions.

QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

All the sample results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

**CHESHIRE AIR MONITORING PROJECT
PM10**

Parameter: Suspended Particles

Work Order Numbers:

0208008, 0209001, 0209002, 0209015, 0209015, 0209016, 0209017, 0209018, 0210005

Date of Analysis 8/16/2002

Analyst: FAA

BALANCE VERIFICATION:

Standard Weights	Balanced weight	Differences
Actual (g)	Balanced (g)	(g)
Limit +/- 0.0005 g		
1.0000	1.0000	0.0000
2.0000	2.0000	0.0000
5.0000	4.9998	0.0002

QC-SUMMARY FOR EXPOSED FILTERS

Filter ID	CRL Sample	Sampling	ANALYST	Exposed
Number	I.D Number	Date		weight (g)
Q6597484	2002AH64S01	08/18/02	Analyst 1	4.4425
Q6597484	2002AH64S01	08/18/02	Analyst 2	4.4430
Differences (Limit +/- 5 mg).....				-0.0005
Q6597471	2002AH65S02	08/24/02	Analyst 1	4.4799
Q6597471	2002AH65S02	08/24/02	Analyst 2	4.4800
Differences (Limit +/- 5 mg).....				-0.0001

**CHESHIRE AIR MONITORING PROJECT
PM10**

Filter ID Number	CRL Sample I.D Number	Sampling Date	Station Location	Sampler SN	Pstg Avg	P1/Pa	Total Volume (M ³)	Pre Weight of filters (g)	Exposed weight (g)	Weight Gain	PM10 (UG/M ³)
Work Order Number 0208008											
Q8609567	2002AH62D01	08/06/02	Guiding Hands School	3012	16.10		0.00	4.3699	4.4610	0.0911	ERR
Q8609568	2002AH62S01	08/06/02	Guiding Hands School	3013	16.30		0.00	4.3413	4.4385	0.0972	ERR
Q6597482	2002AH62S02	08/06/02	RVHS	-	20.00		0.00	4.4009	4.4795	0.0786	ERR
Q6597481	2002AH62S03	08/06/02	Addaville	-	20.50		0.00	4.4009	4.4221	0.0212	ERR
Work Order Number 0209001											
Q6597480	2002AH63D01	08/12/02	Guiding Hands School	3013	20.45		0.00	4.4166	4.4776	0.0610	ERR
Q6597479	2002AH63S01	08/12/02	Guiding Hands School	3012	20.90		0.00	4.4190	4.4659	0.0469	ERR
Q6597493	2002AH63S02	08/12/02	RVHS	-	21.10		0.00	4.4035	4.4594	0.0559	ERR
Q6597489	2002AH63S03	08/12/02	Addaville	-	20.80		0.00	4.4134	4.4632	0.0498	ERR
Work Order Number 0209002											
Q6597488	2002AH64D01	08/18/02	Guiding Hands School	3013	20.95		0.00	4.4444	4.4624	0.0180	ERR
Q6597484	2002AH64S01	08/18/02	Guiding Hands School	3012	20.85		0.00	4.4140	4.4425	0.0285	ERR
Q6597486	2002AH64S02	08/18/02	RVHS	-	21.05		0.00	4.3839	4.3995	0.0156	ERR
Q6597487	2002AH64S03	08/18/02	Addaville	-	18.85		0.00	4.4050	4.4266	0.0216	ERR
Work Order Number 0209015											
Q6597485	2002AH65D01	08/24/02	Guiding Hands School	3012	20.20		0.00	4.4080	4.4662	0.0582	ERR
Q6597490	2002AH65S01	08/24/02	Guiding Hands School	3013	20.05		0.00	4.3813	4.4362	0.0549	ERR
Q6597492	2002AH65S02	08/24/02	RVHS	-	20.10		0.00	4.4290	4.4850	0.0560	ERR
Q6597471	2002AH65S03	08/24/02	Addaville	-	20.50		0.00	4.4502	4.4799	0.0297	ERR
Work Order Number 0209016											
Q6597491	2002AH66D01	08/30/02	Guiding Hands School	3012	20.30		0.00	4.4264	4.4412	0.0148	ERR
Q6597494	2002AH66S01	08/30/02	Guiding Hands School	3013	20.90		0.00	4.4152	4.4529	0.0377	ERR
Work Order Number 0209017											
Q6597467	2002AH67D01	09/05/02	Guiding Hands School	3012	21.35		0.00	4.4111	4.4445	0.0334	ERR
Q6597466	2002AH67S01	09/05/02	Guiding Hands School	3013	20.75		0.00	4.4130	4.4383	0.0253	ERR
Q6597464	2002AH67S02	09/05/02	RVHS	-	21.15		0.00	4.4320	4.4724	0.0404	ERR
Q6597465	2002AH67S03	09/05/02	Addaville	-	21.10		0.00	4.4245	4.4566	0.0321	ERR
Work Order Number 0209018											
Q6597446	2002AH70S01	09/23/02	Guiding Hands School	3012	21.05		0.00	4.4275	4.4432	0.0157	ERR
Q6597460	2002AH70S03	09/23/02	Addaville	-	20.40		0.00	4.4310	4.4545	0.0235	ERR
Work Order Number 0210005											
Q6597455	2002AH71D01	09/29/02	Guiding Hands School	3012	21.35		0.00	4.4549	4.4918	0.0369	ERR
Q6597454	2002AH71S01	09/29/02	Guiding Hands School	3013	20.50		0.00	4.4837	4.5210	0.0373	ERR
Q6597457	2002AH71S02	09/29/02	RVHS	-	20.55		0.00	4.4527	4.4868	0.0341	ERR
Q6597456	2002AH71S03	09/29/02	Addaville	-	20.35		0.00	4.4566	4.4889	0.0323	ERR

ITS	Filt. ID.	TARE wt (g)	DUP wt (g)	Exposed wt (g)	Exposed wt Dup (g)	Comments
	06597495	4.4440				
	06597468	4.4357				
	06597469	4.4357		4.4869		
sent	06597470	4.4143		4.4664	4.4664 ^{no}	
	06597471	4.4502	4.4506	4.4799	4.4800 ^{no}	
	06597472	4.4558		4.5082		
	06597473	4.4380		4.4731		
	06597474	4.4511		4.4803		
	06597475	4.4035	4.4040	4.4594		
	06597476	4.4355		4.4760		
	06597477	4.4380		4.4822		
	06597478	4.4059		4.4435		
	06597479	4.4190		4.4659		
	06597480	4.4166		4.4776		
	06597481	4.4009		4.4221		
	06597482	4.4009		4.4795		
	06597483	4.4152		4.4529		
	06597484	4.4140		4.4425	4.4430 ^{AT}	
	06597485	4.4080		4.4654	62 Feb 10/17/02	smudge like dried wet spots
	06597486	4.3839		4.3995		
	06597487	4.4050		4.4266		
	06597488	4.4444		4.4624		Large tear in the middle
	06597489	4.4134	4.4133	4.4623	Feb 10/17/02	
	06597490	4.3813		4.4362		
	06597491	4.4264		4.4412		
	06597492	4.4290		4.4850		Scratch on one side
	0659496	4.4216				

US EPA Region 5 Field Sample



5-340290-1

Parameters PM10

AIR 0209016

S M M D B D

Preservative None

Sample ID 02AH66001

Sampler Mike Muepft

Date 8-30-02

AIRS

OPERATOR

DEPA

DATE 8-30-02

PM-10

TSP

SITE

GAS # 301A2

Q6597471

AVG. RECORDER RESP.

20.23

TEMP

°C

K

FINAL WT

g

ELAPSED TIME

1440

MINUTES

PRESS

mmHg

INITIAL WT

g

FLOW

m³/min

TOTAL FLOW

m³

SAMPLE WT

g

STD

ACTUAL

PM-10

ug/m³

COMMENTS:

Preservative None S M MD B D
Sample ID 02AH66SO1 X
Sampler Mike Murphy
Date 8.30.02

US EPA Region 5 Field Sample
5-340289-1
Parameters PM10
AIR 0209016

PM-10 AIRS OPERATOR CEPA DATE 8.30.02

TSP _____ SITE GHS#30143 Q6579494

AVG. RECORDER RESP. 20.79 TEMP _____ °C _____ K FINAL WT _____ g

ELAPSED TIME 1440 MINUTES PRESS _____ mmHg INITIAL WT _____ g

FLOW _____ m³/min TOTAL FLOW _____ m³ SAMPLE WT _____ g

STD _____ ACTUAL _____ PM-10 _____ ug/m³

COMMENTS: _____

5.0 mg
 2.0 mg
 1.0 mg
 0.5 mg
 0.25 mg
 0.1 mg
 0.05 mg
 0.025 mg
 0.01 mg
 0.005 mg
 0.0025 mg
 0.001 mg
 0.0005 mg
 0.00025 mg
 0.0001 mg

General INFO

STANDARD weights (g)
(Actual)

Reference weights (g)
(Reference)

Mettler AB285
 5/N 1120181838
 10/09/02 A/B
 100.00 mg
 200.00 mg
 500.00 mg
 800.00 mg
 500.00 mg
 200.00 mg
 50.00 g
 50.000 g
 20.000 g
 20.000 g
 500.00 mg
 100.000 g

Sartorius
 37010119
 10/11/02
 100 mg
 200 mg
 500 mg
 800 mg
 500 mg
 200 mg
 50 g
 50.000 g
 20.000 g
 20.000 g
 500.00 mg
 99.98 mg
 99.99 mg
 99.99 mg
 5.0001

Mettler AB285
 5/N 1120181838
 10/15/02 A/B
 100 mg
 200 mg
 500 mg
 800 mg
 500 mg
 200 mg
 50 g
 50.000 g
 20.000 g
 20.000 g
 500.00 mg
 99.98 mg
 99.98 mg
 99.98 mg
 201.000 g
 20.000 g
 501.000 g
 100.000 g

Sartorius
 37010119
 10/17/02 A/B
 1.0005
 2.0000
 5.0000
 1.0000
 2.0000
 4.9998

